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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.              | CONFIRMATION NO.       |
|--|-------------|-----------------------|----------------------------------|------------------------|
| 10/734,771   | 12/12/2003  | Ramakrishnan Rajamony | AUS920030887US1                  | 1762                   |
| 45502 7590 12/31/2007<br>DILLON & YUDELL LLP<br>8911 N. CAPITAL OF TEXAS HWY.,<br>SUITE 2110<br>AUSTIN, TX 78759 |             |                       | EXAMINER<br>NOORISTANY, SULAIMAN |                        |
|  |             |                       | ART UNIT<br>2146                 | PAPER NUMBER           |
|  |             |                       | MAIL DATE<br>12/31/2007          | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                 |  |  |
|------------------------------|---------------------------------|--|--|
| <b>Office Action Summary</b> | Application No.<br>10/734,771   | Applicant(s)<br>RAJAMONY, RAMAKRISHNAN |  |
|                              | Examiner<br>Sulaiman Nooristany | Art Unit<br>2146                       |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

***Detailed Action***

This Office Action is response to the application (10/734771) filed on 12 December 2003.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 17 is directed at a software computer program per se. A computer program is non-statutory because it is not considered a process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. Because the claim may be directed toward a program the claim as a whole is considered non-statutory.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a), which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3, 10, 12-13, 17-18, 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Loguinov** U.S. Patent App. No. **US 2002/0169880** in view of **Burman** U.S. Patent App. No. **US 2001/0010059**.

**Regarding claim 1, 10 and 17**, Loguinov teaches wherein a method for providing a service for estimating the obtainable bandwidth of a client's network connection, said method comprising:

A service provider (**internet which is obvious to as a method by which users connect to the internet, usually through a service of an internet provider – (Col. 1, lines 12-22) “internet also is a gateway computers between client computer and server computer”**), receiving, from a server a request for a bandwidth estimation of a bandwidth of a connection between the server and the client (**the present invention relates to estimating the real-time bottleneck bandwidth of an end-to-end Internet path between a server and client – [0010]**)

service provider, responding to the request for bandwidth estimation by providing the client with a snippet to the server to serve first and second objects, in a chronologically sequential manner, to the client via the connection (**Fig. 1, 5**);

receiving, from the snippet at the client information indicative of the time elapsing between delivery of the first and second objects (**Fig. 1, 6**); and

estimating the obtainable bandwidth of the connection based in part on the elapsed time (**the receiver generates a special packet or acknowledgment packet**

**(ACK) with the computed estimate value, B.sub.B, and transmits it back to the sender – [0006]).**

With respect to claims 1, 10 and 17, Loguinov teaches well the invention set forth above except for the claimed "*an executable configured to request.*"

Burman teaches that it is well known to have an executable configured to request **(Java applet – [0120]).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Loguinov's invention by utilizing client, server, and network comprise elements in the Internet environment. In such embodiments, client may comprise or be equivalent to an Internet web browser such as NETSCAPE NAVIGATOR or MICROSOFT INTERNET EXPLORER, and adaptive agent is equivalent to an applet (e.g., a Java applet) obtained from server. An applet is a program (usually small in size) that is downloaded from the server and run from the browser on client. If the applet is written in the Java programming language, a Java virtual machine may be built into the browser and interprets the instructions. The term "executable software," as used herein, is not limited to, computer programs, or applications, computer or software code, lists or sequences of computer or browser implementable or executable instructions, commands, program steps, codes, etc., SCRIPTS, script files, Java Applets and program listings, regardless of format or form, as taught by Burman.

**Regarding claims 2, 12 and 18, Burman further teaches wherein the instructions for consecutively transmitting the first and second objects comprise[[s]] instructions for consecutively transmitting the first and second objects (see above rejection) in response to at least one request specifying URLs that are unique on a network connecting the client and the server (a user can select which web page or hypertext document the user wishes to have displayed on the user's computer or terminal by specifying the web page's Universal or Uniform Resource Locator (URL) address. Each server has a unique URL address and, in fact, so does each web page and each file needed to display the web page – [0008]).**

**Regarding claims 3, 13 and 20, Burman further teaches wherein the instructions for transmitting the first and second objects to the client comprise instructions for transmitting the first and second objects to the client from a content distribution network server that is architecturally proximal to an ISP of the client (“Internet Service Provider (ISP)” – [0072]).**

Loguinov, however, discloses the term “INTERNET”, which is obvious to (a method by which users connect to the internet, usually through the service of an internet provider – Col. 1, lines 12-22).

**Claims 4-9, 11, 14-16, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loguinov U.S. Patent App. No. US 2002/0169880 in view of Burman U.S. Patent App. No. US 2001/0010059 in further view of Patel U.S. Patent No. US 6,731,600.**

**Regarding claims 4 and 14**, Loguinov and Burman together taught the computer program product of claim 3, as described above. However, Loguinov and Burman are silent in term of size of the second object.

Patel further teaches wherein the second object has a size less than or equal to a minimum transmission unit associated with the network, wherein the second object is prevented from fragmentation **(the size of the second packet data is less than or equal to 500 bytes, the client computer assigns the second correction factor to be equal 60 milliseconds – Col. 11, lines 47-49).**

would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Loguinov's Burman's and Kraft's invention by having a method for determining a transmission bandwidth wherein the method comprises receiving a first data packet and a second data packet from a server computer over a communication link to the server computer, and determining a transmission bandwidth of said communication link, responsive to the receipt of the data packets. In addition, accessing at least one identifier in a first data packet, where the identifier indicating that the first data packet and the second data packet are being sent back-to-back relative to each other. Furthermore, receiving the first data packet in the client computer; identifying a first point in time upon the completion of the receipt of the first data packet; receiving the second data packet; identifying a second point in time upon the completion of the receipt of the second data packet; determining the difference between the first point in time and the second point in time; determining a quantity of data in the second

data packet; and determining the transmission bandwidth based on the determined difference and the determined quantity, as taught by Patel.

**Regarding claims 5 and 16, Patel further teaches wherein the snippet, wherein the snippet includes:**

**instructions for creating first and second image objects (transmit and receive data object, including video, text, graphic and other data, over a network – Col. 1, lines 13-15);**

**instructions for generating a unique identifier (uniqueID) (accessing at least one identifier in a first data packet, the identifier indicating that the first data packet and the second data packet – Col. 2, lines 6-9); and**

**Burman further teaches wherein instructions for associating the first and second image objects with the first and second objects on the server using URLs containing the uniqueID (URL – [0008]).**

**Loguinov further teaches (Each packet in real-time application carries a burst identifier, which allows the receiver to distinguish packets from different bursts – [0021]).**

**Regarding claim 6, Burman further teaches wherein instructions for ignoring, by the server, the uniqueID in the first and second URL[']s wherein requests for the first and second objects from any client are served from a single pair of objects on the server, regardless of the uniqueID in the URL[']s received by the server (URL – [0008]).**



Patel further teaches (accessing at least one identifier in a first data packet, the identifier indicating that the first data packet and the second data packet – Col. 2, lines 6-9).

Regarding claims 7 and 19, Burman further teaches wherein the instructions for generating the uniqueID (each server has a unique address [0008])

Patel further teaches wherein instructions for deriving the identifier based on a time of day value and a random number (the timestamp indicates the system time, such as “12:05:56 a.m.” – Col. 7, lines 17-18).

Regarding claim 8, Patel further teaches wherein the at least one request includes a first request for the first object and a second request for the second object, and wherein the instruction set further includes instructions for responding to [[a]] the first request for the first object only after [[a]] the second request for the second object having the same uniqueID as the uniqueID associated with the first request for the first object has been received (the server computer stores (FIG. 1) a first packet identifier in a header portion of a first data packet. The first packet identifier in the header portion indicates that the server computer is going to transmit a second data packet to the client computer (FIG. 1) immediately after transmitting the first data packet. Thus, the first packet identifier indicates that data packets are being transmitted "back-to-back" – Col. 10, lines 7-12).

**Regarding claims 9 and 15, Patel further teaches wherein instructions for invoking the snippet multiple times to obtain multiple estimates of the bandwidth (the transmission bandwidth detector uses identified back-to-back data packets “refers to multiple” to determine the transmission bandwidth between the server computer and the client computer -- abstract, lines 10-13); and**

**instructions means for selecting a highest obtained bandwidth from among the multiple estimates of the bandwidth as the estimated bandwidth (estimate the maximum transmission bandwidth for a network – Col. 9, lines 60-61).**

**Loguinov further teaches (fig. 5-6).**

**Regarding claim 11, Loguinov further teaches wherein maintaining response time data for the server and alerting the server based the server response time for a selected client and the estimated bandwidth associated with the selected client (Fig. 5-6).**

***Response to Amendment***

Applicant's arguments with respect to claim(s) 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sulaiman Nooristany whose telephone number is 571-270-1929. The examiner can normally be reached on Monday Through Friday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Pwu can be reached on 571-272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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\*Sulaiman Nooristany 1212/2007\*\*

A handwritten signature in black ink, appearing to read 'Jeffrey PWU', written in a cursive style.

JEFFREY PWU  
SUPERVISORY PATENT EXAMINER